## Amendments to the Claims

1. **(Currently Amended)** An optical head comprising:

a light emitting element having ~~in which~~ plurality of light sources ~~are~~ integrally formed, said light sources being ~~able~~ operable to emit beams having different wave lengths from each other ~~to one another~~;

an optical system operable to converge ~~for converging~~ a beam emitted by any one of said light sources of said light emitting element onto an optical information storage medium;

an optical separator operable to separate ~~for separating~~ a reflected beam coming from the ~~said~~ optical information storage medium from the beam coming from said one of said light sources ~~source~~; and

a light receiving element operable to detect ~~for detecting~~ light quantities of the reflected beam separated by said optical separator.

12

2. **(Currently Amended)** The optical head according to claim 1, wherein said optical separator is operable to separate ~~separates~~ the reflected beam coming from the ~~said~~ optical information storage medium from the beam coming from said one of said light sources ~~source~~ by ~~means of~~ reflection and transmission.

3. **(Currently Amended)** The optical head according to claim 2, wherein an aligning direction of said light sources inclines by about 45 degrees in a rotational direction around an axis of the beam coming from said one of said light ~~source~~ sources based on ~~the basis of~~ a reflection axis of said optical separator.

4. **(Currently Amended)** The optical head according to claim 3, wherein said light receiving element is operable to receive ~~for receiving~~ a zero-order diffracted light, which is located at a central position, and said light receiving element comprises a number ~~is composed~~ of regions ~~of~~ at least ~~a number~~ equal to four times of a number of said light sources, said regions being grouped as ~~composed of~~ region sets each of which includes four of said regions, and each of said region sets being operable

to receive ~~receiving~~ the reflected beam which has been emitted by said one of said light ~~source~~ sources and then reflected by the ~~said~~ optical information storage medium.

5. **(Currently Amended)** The optical head according to claim 4, wherein said optical separator comprises ~~is composed of~~ a parallel plate.

6. **(Currently Amended)** The optical head according to claim 1, further comprising an optical element disposed between said light sources and said optical system, said optical element having different ~~which includes two kinds of~~ diffraction gratings ~~grating~~ disposed on front and back portions thereof, wherein depths, pitches, and angles for axes ~~the axis~~ of ~~the~~ beams of said different ~~two kinds of~~ diffraction gratings are different from each other, respectively.

7. **(Currently Amended)** An apparatus for storing and reproducing optical information, said apparatus comprising:

a light emitting element having ~~in which~~ a plurality of light sources ~~are~~ integrally formed, said light sources being operable ~~able~~ to emit beams having different wave lengths from each other ~~to one another~~;

an optical system operable to converge ~~for converging~~ a beam emitted by any one of said light sources of said light emitting element onto an optical information storage medium;

an optical separator operable to separate ~~for separating~~ a reflected beam coming from the ~~said~~ optical information storage medium from the beam coming from said one of said light ~~source~~ sources;

a light receiving element operable to detect ~~for detecting~~ light quantities of the reflected beam separated by said optical separator; and

an electric circuit operable to transform ~~for transforming~~ optical signals of ~~detected by~~ said light receiving element to electric signals so as to output signals stored in the ~~said~~ optical information storage medium as the electric signals.

8. **(Currently Amended)** A method of storing and reproducing optical information for ~~in~~ an apparatus for storing and reproducing the optical information with an optical head, the ~~said~~ optical head including: a light emitting element having ~~in which~~ a plurality of light sources ~~are~~ integrally formed, the ~~said~~ light sources being operable ~~able~~ to emit beams having different wave lengths from each other ~~to one another~~;, an optical system operable to converge ~~for converging~~ a beam emitted by any one of the ~~said~~ light sources of the ~~said~~ light emitting element onto an optical information storage medium;, an optical separator operable to separate ~~for separating~~ a reflected beam coming from the ~~said~~ optical information storage medium from the beam coming from the one of the ~~said~~ light sources ~~source~~;, and a light receiving element operable to detect ~~for detecting~~ light quantities of the reflected beam separated by the ~~said~~ optical separator, said method comprising ~~the steps of~~:

identifying a ~~the~~ kind of the ~~said~~ optical information storage medium;

making the ~~said~~ light emitting element emit a ~~the~~ beam having a wave length corresponding to the identified kind of the ~~said~~ optical information storage medium and then converging the beam onto the ~~said~~ optical information storage medium; and

detecting the reflected beam coming from the ~~said~~ optical information storage medium and then outputting signals stored in the ~~said~~ optical information storage medium as electric signals.



20